

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-27 (canceled)

Claim 28 (currently amended). A method of producing a body ply material for a pneumatic tire comprising the steps of:

manufacturing a ribbon of a predetermined width dimension in the form of a cord having a rubber covering applied thereto;

spirally winding said ribbon on an outer peripheral surface of ~~drums~~ a drum, and bonding lateral edges of said ribbon to each other to manufacture a wrapper;

setting a peripheral length dimension of the outer peripheral surface of said ~~drums~~ drum to the same as or integral multiples of a width dimension of a body ply material ~~materials~~ for use in a tire;

setting a winding length in a drum longitudinal direction of said wrapper equal to a length dimension of said body ply materials for use in a tire; and

after the step of manufacturing the wrapper, cutting said wrapper on one drum along the longitudinal direction of the drum, wherein said wrapper is cut along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on said drum;

peeling partly an edge of the wrapper from the drum; and

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adsorbing the edge of the wrapper on vacuum pads at a tray to transfer the body ply material onto the tray.

Claim 29 (original). The method of producing a body ply material for a pneumatic tire according to claim 28, wherein after the step of manufacturing the wrapper, said wrapper on one drum is cut at one location in the longitudinal direction of the drum to produce a body ply material for one tire.

Claim 30 (currently amended). The method of producing a body ply material for a pneumatic tire according to claim ~~29~~ 28, wherein ~~said a plurality of~~ wrappers on a plurality of drums different in the peripheral length dimension are cut at one location in the longitudinal directions of said drums, respectively, to produce a plurality of body ply materials different in width dimension for use in one tire.

Claim 31 (original). The method of producing a body ply material for a pneumatic tire according to claim 28, wherein after the step of manufacturing a wrapper, said wrapper on one drum is cut at two locations in the longitudinal direction of said drum to produce two body ply materials for use in one tire.

Claim 32 (currently amended). The method of producing a body ply material for a pneumatic tire according to claim 31, wherein said wrapper is cut at two locations such that two body ply ~~material differs~~ materials differ in the width dimension from each other.

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Claim 33 (currently amended). The method of producing a body ply material for a pneumatic tire according to claim + 28, wherein a finish end of the ribbon wound on the drum is cut at a right angle to the longitudinal direction of the ribbon.

Claim 34 (currently amended). The method of producing a body ply material for a pneumatic tire according to claim + 28, wherein said wrapper is cut along said gentle curve which passes a winding start end and a winding finish end of the ribbon.

Claim 35 (currently amended). A device for producing a body ply material for a pneumatic tire, comprising:

a ribbon manufacturing device for manufacturing a ribbon of a predetermined width dimension in the form of a cord having a rubber covering applied thereto;

a ribbon winding mechanism for spirally winding said ribbon on an outer peripheral surface of ~~drums~~ a drum and

a bonding mechanism for bonding lateral edges of the ribbon to manufacture a wrapper;

a peripheral length dimension of the outer peripheral surface of said ~~drums~~ drum being set equal to or integral multiples of a width dimension of a body ply ~~materials~~ material for use in a tire;

a winding length in a drum longitudinal direction of said wrapper being set equal to a length dimension of said body ply ~~materials~~ material for use in a tire; and

a wrapper cutting mechanism for cutting said wrapper along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon to form the body ply ~~materials~~ material of a predetermined width dimension;

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a body ply material peeling mechanism for peeling the body ply material from the drum; and
a tray for receiving and supporting the body ply material peeled from the drum, said tray
having a plurality of vacuum pads for adsorbing the peeled body ply material on the tray and being
transported to a direction intersecting the axial line of the drum by a tray transporting mechanism;
wherein said body poly material peeling mechanism comprises a peeling tool for partially
peeling an edge of a cut body ply material, following cutting of the wrapper, and a rotating peeling
bar entering a gap of the cut edge, formed by the peeling tool, to transfer the body ply material onto
the tray.

Claim 36 (currently amended). The device for producing a body ply material for a tire according to claim 35, wherein said ribbon winding mechanism comprises a ribbon winding guide corresponding to the ~~drums~~ drum rotatably supported by ~~frames~~ a frame, and a relative movement mechanism for relatively moving said ~~drums~~ drum and said ribbon winding guide in an axial direction of the ~~drums~~ drum at a predetermined feed speed.

Claim 37 (currently amended). The device for producing a body ply material for a tire according to claim 36, wherein start end holding mechanism capable of holding a winding start end of the ribbon ~~are~~ is provided for the drum ~~drums~~.

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Claim 38 (original). The device for producing a body ply material for a tire according to claim 36, wherein said ribbon winding mechanism comprises a ribbon cutting mechanism for cutting a winding finish end of the ribbon wound on the drum.

Claim 39 (currently amended). The device for producing a body ply material for a tire according to claim 35, wherein said wrapper cutting mechanism comprises a cutter disposed corresponding to said ~~drums~~ drum for movements into contact with and away from the drum ~~drums~~, and a moving mechanism for moving said cutter along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum, while holding said drum ~~drums~~ in a non-rotating state.

Claim 40 (currently amended). The device for producing a body ply material for a tire according to claim ~~35~~ 35, wherein said wrapper cutting mechanism is configured to move the cutter disposed corresponding to said drum ~~drums~~ for movements into contact with and away from the drum ~~drums~~ in a direction parallel with the axial direction of the drum ~~drums~~, and slowly pivoting said ~~drums~~ drum to cut the wrapper along the gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum.

Claim 41 (currently amended). The device for producing a body ply material for a tire according to claim 38, wherein a blade groove is ~~grooves are~~ provided on the outer peripheral

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~~surfaces of said drums~~ surface of the drum for cutting said wrapper along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum, wherein a blade edge of said cutter is guided by one edge of said blade groove to cut the wrapper.

Claim 42 (canceled).

Claim 43 (canceled).

Claim 44 (currently amended). The device for producing a body ply material for a tire according to claim ~~43~~ 35, wherein said body ply material peeling mechanism is configured to transfer the body ply material on said tray which is moving in a transporting direction, while peeling the body ply material from the drum in a rotating state.

Claim 45 (currently amended). The device for producing a body ply material for a tire according to claim 35, wherein said device has said drum and additional drums, said drum and additional drums being are disposed at a plurality of locations, and each of said drum and additional drums is configured to be switchable among a ribbon winding position, a ribbon bonding position, a wrapper cutting position, and a body ply material peeling position by a position switching mechanism.

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Claim 46 (currently amended). The device for producing a body ply material for a tire according to claim 35, wherein said ~~drums~~ drum comprise a drum diameter changing mechanism for enlarging and reducing outer diameters thereof.

Claim 47 (currently amended). The device for producing a body ply material for a tire according to claim 45, comprising:

a drum reversing/supporting mechanism for rotatably supporting ~~the pair of~~ a pair of drums having the same outer diameter, and formed with a blade groove ~~grooves~~, and functioning as a position switching mechanism for alternately reversing said pair of drums to two positions,

wherein a ribbon is wound on the outer periphery of ~~a drum~~ one of the pair of drums placed at one position by the drum reversing/supporting mechanism to form a wrapper, and

said wrapper on the outer periphery of ~~the drum~~ the one of the pair of drums reversed to the other position by said drum reversing/supporting mechanism is cut along the blade groove of the drum to form a body ply material.

Claim 48 (canceled).

Claim 49 (currently amended). The device for producing a body ply material for a tire according to claim ~~38~~ 39, wherein said wrapper cutting mechanism comprises a roller for pressing the wrapper ahead of said cutter.

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Claim 50 (currently amended). The device for producing a body ply material for a tire according to claim ~~43~~ 35, wherein said tray transporting mechanism comprises a pressing force adjusting mechanism for adjusting a pressing force of the tray to the drum ~~drums~~.

Claim 51 (currently amended). The device for producing a body ply material for a tire according to claim ~~47~~ 35, wherein said ribbon winding mechanism is configured to perform a winding operation for the ~~drums~~ drum in an outgoing stroke and a returning stroke of reciprocal movements in a direction parallel with the axial direction of the ~~drums~~ drum.

Claim 52 (canceled).

Claim 53 (canceled).

Claim 54 (canceled).